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#### **ENERGY AND ENVIRONMENT CABINET**

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DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
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FRANKFORT, KENTUCKY 40601
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#### FACT SHEET

# KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0103675 Permit Writer: Mahmoud Sartipi Date: September 29, 2009

**AI No.:** 4366

#### 1. SYNOPSIS OF APPLICATION

a. Name and Address of Applicant

Ashland Incorporated P.O. Box 185 Martha, Kentucky 41159

b. Facility Location

Ashland Incorporated Route 469, Mile Marker 6 Martha, Johnson County, Kentucky 41159

c. Description of Applicant's Operation

Bioremediation of Hydrocarbon Contaminated Soils

d. Production Capacity of Facility

Not applicable

e. Description of Existing Pollution Abatement Facilities

001: Storm water runoff from a bioremediation of hydrocarbon contaminated soil unit.



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#### f. Permitting Action

This is a re-issuance of an individual KPDES permit to an existing bioremediation operation (SIC 8744).

#### 2. **RECEIVING WATER**

a. Name/Mile Point

Outfall 001 discharges to Lostlick Branch at latitude 37° 59′ 14″ and longitude 82° 55′ 58″

b. Stream Segment Use Classification

Pursuant to 401 KAR 10:026, Section 5, Lostlick Branch carries the following classifications: Warmwater Aquatic Habitat, Primary/Secondary Contact Recreation, and Domestic Water Supply.

c. Stream Segment Categorization

Pursuant to 401 KAR 10:030, Section 1 Lostlick Branch is categorized as a High Quality Waters.

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of Lostlick Branch are 0.0 cfs and unknown, respectively.

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### 3. REPORTED DISCHARGE AND PROPOSED LIMITS

Description of Discharge - Storm water runoff from a bioremediation of hydrocarbon contaminated soil unit

Effluent Characteristics	Reported Da Monthly Average	ischarge Daily Maximum	Proposed I Monthly Average	Limits Daily Maximum	Applicable Water Quality Criteria and/or Effluent Guidelines
Flow (MGD)	0.001	0.001	Report	Report	401 KAR 5:065, Section 2(8)
Precipitation (inches)	0.13	0.34	Report	Report	401 KAR 5:065, Section 2(8)
Benzene (µg/l)	2.86	5	Report	Report	401 KAR 5:065, Section 2(8)
Xylene (µg/l)	5.56	6	Report	Report	401 KAR 5:065, Section 2(8)
Oil & Grease (mg/l)	6.85	11	10	15	401 KAR 5:080, Section 1(2)(c)2
Total Suspended Solids (mg/l)	12.37	137.2	30	60	401 KAR 5:080, Section 1(2)(c)2
Toluene (µg/l)	2.86	5	Removing fro	om permit	401 KAR 5:080, Section 1(2)(c)2
Ethylbenzene (µg/l)	2.86	5	Removing fro	om permit	401 KAR 5:080, Section 1(2)(c)2
Total Radium (pci/1) (Radium 226 and Radium 228)	3.44	9.6	Removing fro	om permit	401 KAR 5:080, Section 1(2)(c)2
pH (standard units)	6.69	8	6.0 (min)	9.0 (max)	401 KAR 10:031, Section 4

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#### METHODOLOGY USED IN DETERMINING LIMITATIONS 4.

a. Serial Number

> Outfall 001 - Storm water runoff from a bioremediation of hydrocarbon contaminated soil unit

b. Effluent Characteristics

Flow, Precipitation, TSS, Oil & Grease, Benzene, Xylene and pH

c. Pertinent Factors

None

d. Monitoring Requirements

Flow monitoring shall be conducted once per month.

Precipitation, TSS, Oil & Grease, Benzene, Xylene and pH shall be monitored once per Month by grab sample.

Justification of Conditions e.

> The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Flow, Precipitation, Benzene, and Xylene
The monitoring requirements for these parameters are consistent with the requirements of 401 KAR 5:065, Section 2(8).

Oil & Grease and Total Suspended Solids

The limits and requirements for these parameters are consistent with the requirements of 401~KAR 5:080, Section 1(2)(c)2. These limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Practicable Control Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these types of discharges.

The limits and requirements for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4(1)(b).

Toluene, Total Radium and Ethylbenzene

The removal of these parameters from the permit is consistent with 401 KAR 5:080, Section 1(2)(c)2. A review of the DMR data for the previous permit indicated that reasonable potential did not exist for these parameters to be limited or monitored in the permit. Therefore, it is the "Best Professional Judgment (BPJ) of the Division of Water that these parameters be removed from the permit.

#### 5. ANTIDEGRADATION

The conditions of 401 KAR 10:029, Section 1 has been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 10:030 Section 1 is not applicable.

#### PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS 6.

The permittee will comply with all effluent limitations by the effective date of the permit.

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#### 7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

#### Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. The facility has several areas where support activities occur which have a potential of the discharge of such substances through storm water runoff or spillage. Some of these areas will drain to present wastewater treatment plants, others will not.

#### Outfall Signage

The permittee shall post a permanent marker at all discharge locations and/or monitoring points. The marker shall be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and shall be posted as near as possible to the actual sampling location.

#### 8. **PERMIT DURATION**

Five (5) years. This facility is in the Big and Little Sandy, Tygarts Basin Management Unit as per the Kentucky Watershed Management Framework.

#### 9. **PERMIT INFORMATION**

The application, draft permit, fact sheet, public notice, comments received and additional information is available from the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

#### 10. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

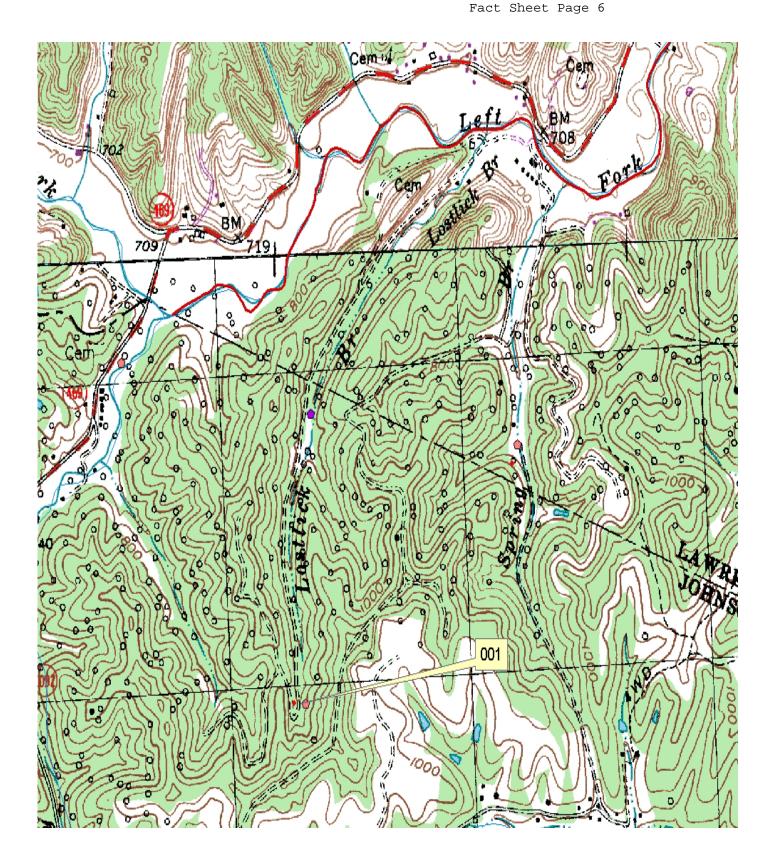
#### 11. CONTACT

For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer - Mahmoud Sartipi at (502) 564-8158, extension 4954, or email Mahmoud.sartipi@ky.gov.

#### 12. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).

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## STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) - REASONABLE POTENTIAL ANALYSIS - OUTFALL 001

Permit Writer	Mahmoud Sartipi	
Date Entered	9/29/2009	
Facility Name	Ashland Inc.	
KPDES Number	KY0103675	
Outfall Number	001	
Case	Reissuance	
Status:		
Is this an existing facility – Enter "E"		
Is this an existing facility with an increase in pollutant load – Enter "I"		
Is this a new facility – Enter "N"  Is this a regional facility with an approved up-to-date 201 plan – Enter "R"		
Has the permittee made a successful alternatives analysis/socioeconomic demonstration – Enter "A"	E	
Receiving Water Name	Lostlick Branch	
Discharge Mile Point	1.5	
-	Ashland Water	
Public Water Supply Name	Works	
Intake Water Name	Ashland Water	
intake water name	Works	
Intake Mile Point	661.72	
Total Effluent Flow (Q <sub>T</sub> )	0.001	MGD
Receiving Water 7Q10 (Q <sub>RW7Q10</sub> )	0	cfs
Receiving Water Harmonic Mean (Q <sub>RWHM</sub> )	0	cfs
Receiving Water pH	7.5	SU
Receiving Water Temperature	20.00	°C
Intake Water 7Q10 (Q <sub>IW7Q10</sub> )	10000	cfs
Intake Water Harmonic Mean (Q <sub>IWHM</sub> )	38400	cfs
Effluent Hardness	100	(as mg/l CaCO3)
Receiving Water Hardness	100	(as mg/l CaCO3)
Zone of Initial Dilution (ZID)	1	
Mixing Zone (MZ)	0	
Acute to Chronic Ratio (ACR)	0.1	
Impaired	NO	
Permittee agrees to accept no mixing zone for bioaccumulative or persistent pollutants prior to 09/08/2014	Yes	

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### STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) - REASONABLE POTENTIAL ANALYSIS - OUTFALL 001

#### **Calculation Methodology**

#### **Definitions**

Acute to Chronic Ratio	ACR	Total Effluent Flow	$Q_T$
Aquatic Life Acute Criteria	$C_A$	Receiving Water 7Q10	$Q_{RW7Q10}$
Aquatic Life Chronic Criteria	$C_C$	Receiving Water Harmonic Mean	$Q_{RWHM}$
Human Health Criteria - Fish Only	$C_{HHFO}$	Intake Water 7Q10	$Q_{IW7Q10}$
Human Health Criteria - Fish & Water	$C_{HHFW}$	Intake Water Harmonic Mean	$Q_{IWHM}$
End of Pipe Effluent Limit	$C_T$	Zone of Initial Dilution	ZID
Instream Background Concentration	$C_{U}$	Mixing Zone	MZ
Toxicity Units - Acute	$TU_a$	Toxicity Units - Chronic	$TU_c$
Effluent Hardness	$H_T$	Receiving Water Hardness	$H_RW$

#### **Aquatic Life - Chemical Specific**

### Acute Chronic Mixing Zone / Complete Mix

**NO** ZID given  $C_T = C_A$   $C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\}/Q_T$ 

ZID given  $C_T = (C_A - C_U) \times (ZID)$ 

#### **Human Health - Chemical Specific**

#### Fish Only: Mixing Zone / Complete Mix

 $\overline{C_{\text{T}}} = \{C_{\text{HHFO}}[Q_{\text{T}} + (MZ)(Q_{\text{RWHM}})] - C_{\text{U}}(MZ)(Q_{\text{RWHM}})\}/Q_{\text{T}}$ 

#### Fish & Water Only: Mixing Zone / Applicable at point of withdrawal

 $\begin{array}{ll} \text{Carcinogen} & \text{$C_T = \{C_{\text{HHFW}}[Q_T + (Q_{\text{IWHM}})] - C_U(Q_{\text{IWHM}})\}/Q_T$} \\ \text{Non-Carcinogen} & \text{$C_T = \{C_{\text{HHFW}}[Q_T + (Q_{\text{IW7Q10}})] - C_U(Q_{\text{IW7Q10}})\}/Q_T$} \\ \end{array}$ 

#### **Aquatic Life - Whole Effluent Toxicity**

# Acute (Units $TU_a$ ) NO ZID given CT = CA Chronic Mixing Zone / Complete Mix (Units TUc) $C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\}/Q_T$

ZID given  $C_T = (C_A - C_U) \times (ZID)$ Conversion of  $TU_c$  to  $TU_a$ :  $TU_c \times ACR = TU_a$ 

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#### STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) - REASONABLE POTENTIAL ANALYSIS - OUTFALL 001

#### **Metal Aquatic Criteria**

<u>Pollutant</u>	Acute Criteria	Chronic Criteria
Total Recoverable Cadmium	e <sup>(1.0166 (In Hardness) - 3.924)</sup>	e <sup>(0.7409 (In Hardness) - 4.719)</sup>
Chromium III	e <sup>(0.8190 (In Hardness) + 3.7256)</sup>	e <sup>(0.8190 (In Hardness) + 0.6848)</sup>
Total Recoverable Copper	e <sup>(0.9422 (In Hardness) - 1.700)</sup>	e <sup>(0.8545 (In Hardness) - 1.702)</sup>
Total Recoverable Lead	e <sup>(1.273 (In Hardness) - 1.460)</sup>	e <sup>(1.273 (In Hardness) - 4.705)</sup>
Total Recoverable Nickel	e <sup>(0.8460 (In Hardness) + 2.255)</sup>	e <sup>(0.8460(In Hardness) + 0.0584)</sup>
Total Recoverable Silver	e <sup>(1.72 (In Hardness) - 6.59)</sup>	
Total Recoverable Zinc	e <sup>(0.8473 (In Hardness) + 0.884)</sup>	e <sup>(0.8473 (In Hardness) + 0.884)</sup>

#### Hardness (as mg/I CaCO<sub>3</sub>)

Zone Initial Dilution (ZID)  $H_{RW} + [H_T + H_{RW}]/ZID$  Mixing Zone  $[(Q_{RW7Q10})(MZ)(H_{RW}) + (Q_T)(H_T)]/[(QRW7Q10)(MZ) + (QT)]$ 

#### **Total Ammonia Criteria**

 Chronic - applies state wide - unionzed criteria of 0.05 mg/l
  $[0.05*(1+10^{(pka-pH))}]/1.2$  pka=(0.0902+(2730/(273.1+T)) T = Temperature °C

 Acute - applies to the Ohio River (ORSANCO Criteria)
  $[0.411/(1+10^{(7.204-pH)})]+[58.4/(1+10^{(ph-7.204)})]$ 

#### **Bioaccumulative or Persistent**

For new facilities after September 8, 2004 mixing zones shall not be granted for bioaccumulative or persistent pollutants of concern.

Mixing zones for bioaccumulative or persistent pollutants of concerned assigned prior to September 8, 2004 shall expire no later than September 8, 2014, unless the permittee agrees to expiration of the mixing zone prior to that date.

Therefore, the application of the more stringent criteria of Human Health Fish & Water Consumption, Human Health Fish Only Consumption, and Aquatic Life Chronic shall apply as end-of-pipe effluent limitations.

#### **Antidegradation**

If a new facility or an existing facility that will have a pollutant load increase, the effluent limits are halved unless the receiving stream is impaired or the permittee has demonstrated a negative socioeconomic or cost benefit analysis.

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#### STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL (SSTWAM2004) - REASONABLE POTENTIAL ANALYSIS - OUTFALL 001

#### **Reasonable Potential Analysis**

In establishing water quality based effluent conditions the Division of Water must determine if the pollutant concentrations in the discharge will cause, have the reasonable potential to cause, or contribute to an excursion of any water standard. The process by which the Division of Water makes this determination is known as a Reasonable Potential Analysis.

A Reasonable Potential Analysis is performed by first calculating the expected effluent limitations for those pollutants with water quality criteria. The calculated limits are then compared to the concentrations reported on the KPDES permit application and/or a summarization of the values reported on the Discharge Monitoring Report (DMRs) submitted during the term of the permit. This comparison is made by dividing the reported value by the calculated effluent limitation and converting to a percentage. The following criteria are used in determining how the pollutant will be addressed in the permit.

#### New Permits or New Pollutants on Permit Renewals

If the reported concentration is less than 70% of the calculated effluent limit then no monitoring or limitations will be required.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is less than 12 then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is equal or greater than 12 then an effluent limitation will be required.

#### **Permit Renewals - Existing Pollutants**

If the reported concentration is less than 70% of the calculated effluent limit then and the source of the reported concentration was the DMRs for that facility and there were more than 12 DMRs utilized to determine the reported concentrations then the pollutant will be removed from the permit.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% then an effluent limitation will be required.

In all cases, the Division of Water still may exercise its Best Professional Judgment in the implementation of the results.

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Parameter	CAS	Reported Di	ischarge (mg/l)	Calculated Effluent Limi	Calculated Effluent Limitations (mg/l) Reas		Reasonable Potential Data Source		No. of Effluent Requirement		<u>Justification</u>		
<u>r dramotor</u>	<u>Number</u>	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	Maximum	<u>Buta Coaroo</u>	Samples	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>
Chloride	16887006	0.000000	0.000000	600.000000	1,200.000000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Residual Chlorine		0.000000	0.000000	0.011000	0.019000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Color		0.000000	0.000000	484,500.075000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Fluoride		0.000000	0.000000	12,920,002.000000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Nitrate-Nitrite (as N)	14797558	0.000000	0.000000	64,600,010.000000	NA 🦸	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Alpha		0.000000	0.000000	NA	15.000000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Beta		0.000000	0.000000	NA	50.000000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Radium		0.003440	0.009600	NA	5.000000	0.00%	0.00%	DMR	14	Remove	Remove	NA	Acute
Sulfate (as SO4)		0.000000	0.000000	1,615,000,250.000000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Surfactants		0.000000	0.000000	3,230,000.500000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Barium	7440393	0.000000	0.000000	6,460,001.000000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Iron	7439896	0.000000	0.000000	1.000000	4.000000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Antimony	7440360	0.000000	0.000000	0.640000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Total Recoverable Arsenic	7440382	0.000000	0.000000	0.150000	0.340000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Beryllium	7440417	0.000000	0.000000	25,840.004000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Cadmium	7440439	0.000000	0.000000	0.000271	0.002133	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Chromium	7440439	0.000000	0.000000	646,000.100000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
Total Recoverable Copper	7440508	0.000000	0.000000	0.009329	0.013999	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Lead	7439921	0.000000	0.000000	0.003182	0.081645	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Mercury	7439976	0.000000	0.000000	0.000051	0.001700	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute
Total Recoverable Nickel	7440020	0.000000	0.000000	0.052163	0.469174	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Selenium	7782492	0.000000	0.000000	0.005000	0.020000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Total Recoverable Silver	7440224	0.000000	0.000000	NA	0.003784	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Recoverable Thallium	7440280	0.000000	0.00000	0.006300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Total Recoverable Zinc	7440666	0.000000	0.000000	0.1 <mark>19</mark> 816	0.119816	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
Free Cyanide	57125	0.000000	0.000000	0.0 <mark>05</mark> 200	0.022000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute
2,3,7,8 Tetrachlorodibenzo P Dioxin	1746016	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Acrolein	107028	0.000000	0.000000	0.290000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Acrylonitrile	107131	0.000000	0.000000	0.000250	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzene	71432	0.002860	0.005000	0.051000	NA	5.61%	0.00%	DMR	3	Monitoring	Monitoring	HH Fish	NA
Bromoform	75252	0.000000	0.000000	0.140000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Carbon Tetrachloride	56235	0.000000	0.000000	0.001600	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chlorobenzene	108907	0.000000	0.000000	21.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chlorodibromomethane	124481	0.000000	0.000000	0.013000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chloroform	67663	0.000000	0.000000	0.470000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Dichlorobromomethane	75274	0.000000	0.000000	0.017000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichloroethane	107062	0.000000	0.000000	0.037000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,1-Dichloroethylene	75354	0.000000	0.000000	0.003200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichloropropane	78875	0.000000	0.000000	0.015000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,3-Dichloropropene	542756	0.000000	0.000000	1.700000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Ethylbenzene	100414	0.002860	0.005000	29.000000	NA	0.01%	0.00%	DMR	31	Remove	Remove	HH Fish	NA
Methyl Bromide	74839	0.000000	0.000000	1.500000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Methylene Chloride	75092	0.000000	0.000000	0.590000	NA	0.00%	0.00%	No Data	Ö	None	None	HH Fish	NA
1,1,2,2-Tetrachloroethane	79345	0.000000	0.000000	0.004000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Tetrachloroethylene	127184	0.000000	0.000000	0.003300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Toluene	108883	0.002860	0.005000	200.000000	NA	0.00%	0.00%	DMR	31	Remove	Remove	HH Fish	NA
1,2-Trans-Dichloroethylene	156605	0.000000	0.000000	140.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA

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Parameter	CAS	Reported Di	scharge (mg/l)	Calculated Effluent Limita	tions (mg/l)	Reasonab	ole Potential	Data Source	No. of	Effluent Re	equirement	<u>Justific</u>	ation at the state of the state
<u> </u>	<u>Number</u>	<u>Average</u>	Maximum	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	244 004 00	<u>Samples</u>	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>
1,1,1-Trichloroethane	71556	0.000000	0.000000	1,292,000.200000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA
1,1,2-Trichloroethane	79005	0.000000	0.000000	0.016000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Trichloroethylene	79016	0.000000	0.000000	0.030000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Vinyl Chloride	75014	0.000000	0.000000	0.530000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2-Chlorophenol	95578	0.000000	0.000000	0.150000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2,4-Dichlorophenol	120832	0.000000	0.000000	0.290000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2,4-Dimethylphenol	105679	0.000000	0.000000	0.850000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2,4-Dinitrophenol	51285	0.000000	0.000000	5.300000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Pentachlorophenol	87865	0.000000	0.000000	0.003000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Phenol	108952	0.000000	0.000000	1,700.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2,4,6-Trichlorophenol	88062	0.000000	0.000000	0.002400	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Acenaphthene	83329	0.000000	0.000000	0.990000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Anthracene	120127	0.000000	0.000000	40.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzidine	92875	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(a)anthracene	56553	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(a)pyrene	50328	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Benzo(k)fluoranthene	205992	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bis(2-chloroisopropyl)ether	108601	0.000000	0.000000	65.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Bis(2-ethylhexyl)phthalate	117817	0.000000	0.000000	0.002200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Butylbenzyl phthalate	85687	0.000000	0.000000	1.900000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2-Chloronaphthalene	91587	0.000000	0.000000	1.600000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Chrysene	218019	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Dibenzo(a,h)anthracene	53703	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Dichlorobenzene	95501	0.000000	0.000000	17.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,3-Dichlorobenzene	541731	0.000000	0.000000	0.9 <mark>60</mark> 000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,4-Dichlorobenzene	106467	0.000000	0.000000	2.6 <mark>00</mark> 000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
3,3-Dichlorobenzidine	91941	0.000000	0.000000	0.000028	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Diethyl phthalate	84662	0.000000	0.000000	44.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Dimethyl phthalate	131113	0.000000	0.000000	1,100.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Di-n-butyl phthalate	84742	0.000000	0.000000	4.500000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
2,4-Dinitrotoluene	121142	0.000000	0.000000	0.003400	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2-Diphenylhydrazine	122667	0.000000	0.000000	0.000200	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Fluoranthene	206440	0.000000	0.000000	0.140000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Fluorene	86737	0.000000	0.000000	5.300000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachlorobenzene	118741	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachlorobutadiene	87683	0.000000	0.000000	0.018000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachlorocyclopentadiene	77474	0.000000	0.000000	<b>17</b> .000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Hexachloroethane	67721	0.000000	0.000000	0.003300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Ideno(1,2,3-cd)pyrene	193395	0.000000	0.000000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Isophorone	78591	0.000000	0.000000	0.960000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Nitrobenzene	98953	0.000000	0.000000	0.690000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
N-Nitrosodimethylamine	62759	0.000000	0.000000	0.003000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
N-Nitrosodi-n-Propylamine	621647	0.000000	0.000000	0.000510	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
N-Nitrosodiphenylamine	86306	0.000000	0.000000	0.006000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Pyrene	129000	0.000000	0.000000	4.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
1,2,4-Trichlorobenzene	120821	0.000000	0.000000	0.940000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA
Aldrin	309002	0.000000	0.000000	0.000000	0.003000	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute

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Average   Maximum   Aver	Parameter	Parameter CAS Repo		Reported Discharge (mg/l) Calculated Effluent Limitations (mg/l)			Reasonable Potential Data Source						<u>Justification</u>		
Beta-BHC         319857         0.000000         0.000000         0.000017         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           gamma-BHC (Lindane)         58899         0.000000         0	<u>r aramotor</u>	<u>Number</u>	<u>Average</u>	Maximum	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	<u>Data Coaroo</u>	<u>Samples</u>	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	
gamma-BHC (Lindane)         58899         0.000000         0.000000         0.000063         0.000950         0.00%         0.00%         No Data         0         None         HH Fish         Acute           Chlordane         57749         0.000000         0.000000         0.000001         0.002400         0.00%         No Data         0         None         None         HH Fish         Acute           4,4-DDT         50293         0.000000         0.000000         0.000000         0.001100         0.00%         No Data         0         None         None         HH Fish         Acute           4,4-DDD         72599         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         Acute           4,4-DDD         72548         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Dieldrin         60571         0.000000         0.000000         0.000240         0.00%         0.00%         No Data         0         None         None         HH Fish         Acute           Alpha-Endosulfan         33213659         0.000000<	•							1000 200 100 10	No Data	0	None	None		NA	
Chlordane         57749         0.000000         0.000000         0.000001         0.002400         0.00%         0.00%         No Data         0         None         HH Fish         Acute           4,4'-DDT         50293         0.000000         0.000000         0.000000         0.001100         0.00%         0.00%         No Data         0         None         HH Fish         Acute           4,4'-DDE         72559         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         Acute           4,4'-DDD         72548         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           4,4'-DDD         72548         0.000000         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           4,4'-DDD         72548         0.000000         0.000000         0.000000         0.000000         0.000000         0.000000         No Data         0         None         HH Fish         Na           4,4'-DDI <td< td=""><td>Beta-BHC</td><td></td><td>0.000000</td><td>0.000000</td><td></td><td></td><td>- AMBRON</td><td>40000</td><td>No Data</td><td>0</td><td>None</td><td>None</td><td>HH Fish</td><td>NA</td></td<>	Beta-BHC		0.000000	0.000000			- AMBRON	40000	No Data	0	None	None	HH Fish	NA	
4,4'-DDT         50293         0.000000         0.000000         0.001100         0.00%         0.00%         No Data         0         None         HH Fish         Acute           4,4'-DDE         72559         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           4,4'-DDD         72548         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Dieldrin         60571         0.000000         0.000000         0.000000         0.000000         0.000000         0.000220         0.00%         No Data         0         None         HH Fish         Acute           Alpha-Endosulfan         959988         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Beta-Endosulfan         33213659         0.000000         0.000000         0.000006         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endosulfan sulfate	gamma-BHC (Lindane)	58899	0.000000	0.000000	0.000063	0.000950	And the latest and th	The state of the s	No Data	0	None	None	HH Fish	Acute	
4,4'-DDE         72559         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           4,4'-DDD         72548         0.000000         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Dieldrin         60571         0.000000         0.000000         0.000000         0.0000240         0.00%         No Data         0         None         None         HH Fish         NA           Alpha-Endosulfan         959988         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Beta-Endosulfan         33213659         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         No Data         0         None         None         HH Fish         NA           Heptachlor	Chlordane	57749	0.000000	0.000000	0.000001	0.002400		0.00%	No Data	0	None	None	HH Fish	Acute	
4,4'-DDD         72548         0.000000         0.000000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Dieldrin         60571         0.000000         0.000000         0.000000         0.000240         0.00%         No Data         0         None         HH Fish         Acute           Alpha-Endosulfan         959988         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Beta-Endosulfan         33213659         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endosulfan sulfate         1031078         0.000000         0.000000         0.089000         NA         0.00%         No Data         0         None         None         HH Fish         NA           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000	4,4'-DDT	50293	0.000000	0.000000	0.000000	0.001100		TOTAL CONTRACTOR OF THE PARTY O	No Data	0	None	None	HH Fish	Acute	
Dieldrin         60571         0.000000         0.000000         0.000000         0.000240         0.00%         0.00%         No Data         0         None         HH Fish         Acute           Alpha-Endosulfan         959988         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Beta-Endosulfan         33213659         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endosulfan sulfate         1031078         0.000000         0.000000         0.089000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         Na	4,4'-DDE	72559	0.000000	0.000000	0.000000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Alpha-Endosulfan         959988         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Beta-Endosulfan         33213659         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endosulfan sulfate         1031078         0.000000         0.000000         0.089000         NA         0.00%         No Data         0         None         None         HH Fish         NA           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Heptachlor         76448         0.000000         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         HH Fish         Acute           Heptachlor ep	4,4'-DDD	72548	0.000000	0.000000	0.000000	NA			No Data	0	None	None	HH Fish	NA	
Beta-Endosulfan         33213659         0.000000         0.000000         0.000056         0.000220         0.00%         No Data         0         None         None         Chronic         Acute           Endosulfan sulfate         1031078         0.000000         0.000000         0.089000         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Heptachlor         76448         0.000000         0.000000         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         HH Fish         Acute           Heptachlor epoxide         1024573         0.000000         0.000000         0.000000         0.000000         0.0000520         0.00%         0.00%         No Data         0	Dieldrin		0.000000	0.000000	0.000000	0.000240		0.00%	No Data	0	None	None	HH Fish	Acute	
Endosulfan sulfate         1031078         0.000000         0.089000         NA         0.00%         0.00%         No Data         0         None         HH Fish         NA           Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Heptachlor         76448         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         None         HH Fish         Acute           Heptachlor epoxide         1024573         0.000000         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         None         HH Fish         Acute	Alpha-Endosulfan	959988	0.000000	0.000000	0.000056	0.000220		0.00%	No Data	-	None	None	Chronic	Acute	
Endrin         72208         0.000000         0.000000         0.000036         0.000086         0.00%         0.00%         No Data         0         None         None         Chronic         Acute           Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Heptachlor         76448         0.000000         0.000000         0.000520         0.00%         No Data         0         None         None         HH Fish         Acute           Heptachlor epoxide         1024573         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         None         HH Fish         Acute	Beta-Endosulfan					0.000220				-	None	None	Chronic	Acute	
Endrin aldehyde         7421934         0.000000         0.000000         0.000300         NA         0.00%         0.00%         No Data         0         None         None         HH Fish         NA           Heptachlor         76448         0.000000         0.000000         0.000520         0.00%         0.00%         No Data         0         None         None         HH Fish         Acute           Heptachlor epoxide         1024573         0.000000         0.000000         0.000000         0.0000520         0.00%         No Data         0         None         None         HH Fish         Acute	Endosulfan sulfate	1031078	0.000000	0.000000	0.089000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Heptachlor         76448         0.000000         0.000000         0.000000         0.000520         0.00%         0.00%         No Data         0         None         HH Fish         Acute           Heptachlor epoxide         1024573         0.000000         0.000000         0.000520         0.000%         0.00%         No Data         0         None         HH Fish         Acute	Endrin	72208	0.000000	0.000000	0.000036	0.000086	0.00%	0.00%	No Data	0	None	None	Chronic	Acute	
Heptachlor epoxide 1024573 0.000000 0.000000 0.000000 0.000000 0.000520 0.00% 0.00% No Data 0 None None HH Fish Acute	Endrin aldehyde	7421934	0.000000	0.000000	0.000300	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
	Heptachlor	76448	0.000000	0.000000	0.00000	0.000520		0.00%	No Data	0	None	None	HH Fish	Acute	
Polychlorinated Biphenyls (PCBs) 0 000000 0 000000 0 000000 NA 0 00% 0 00% No Data 0 None None HH Fish NA	Heptachlor epoxide	1024573	0.000000	0.000000	0.000000	0.000520	0.00%	0.00%	No Data	0	None	None	HH Fish	Acute	
- 1 of the state o	Polychlorinated Biphenyls (PCBs)		0.000000	0.000000	0.00000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Toxaphene 8001352 0.000000 0.000000 0.000000 0.000000 0.000730 0.00% 0.00% No Data 0 None None Chronic Acute	Toxaphene	8001352	0.000000	0.000000	0.000000	0.000730	0.00%	0.00%	No Data	0	None	None	Chronic	Acute	
1,2,4,5-Tetrachlorobenzene 95943 0.000000 0.000000 0.00100 NA 0.00% 0.00% No Data 0 None None HH Fish NA	1,2,4,5-Tetrachlorobenzene	95943	0.000000	0.000000	0.001100	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
2-methyl-4,6-dinitrophenol 534521 0.000000 0.000000 0.280000 NA 0.00% 0.00% No Data 0 None None HH Fish NA	2-methyl-4,6-dinitrophenol	534521	0.000000	0.000000	0.280000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
2,4-D 94757 0.000000 0.000000 1,736,448.070000 NA 0.00% 0.00% No Data 0 None None HH DWS NA	2,4-D	94757	0.000000	0.000000	1,736,448.070000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA	
2,4,5-TP (Silvex) 93721 0.000000 0.000000 64,600.010000 NA 0.00% 0.00% No Data 0 None None HH DWS NA	2,4,5-TP (Silvex)	93721	0.000000	0.000000	64,600.010000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA	
2,4,5-trichlorophenol 95954 0.000000 0.000000 3.600000 NA 0.00% 0.00% No Data 0 None None HH Fish NA	2,4,5-trichlorophenol	95954	0.000000	0.00000	3.600000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Asbestos 1332214 0.000000 0.000000 173,644,807,000.000000 NA 0.00% 0.00% No Data 0 None None HH DWS NA	Asbestos	1332214	0.000000	0.000000	173,644,807,000.000000	NA	0.00%	0.00%	No Data	0	None	None	HH DWS	NA	
Benzo(b)fluoranthene 205992 0.000000 0.000000 0.0000018 NA 0.00% 0.00% No Data 0 None None HH Fish NA	Benzo(b)fluoranthene	205992	0.000000	0.00000	0.000018	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Bis(2-chloroethyl)ether 111444 0.000000 0.000000 0.000000 No Data 0 None None HH Fish NA	Bis(2-chloroethyl)ether	111444	0.000000	0.000000	0.000530	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Bis(chloromethyl)ether 542881 0.000000 0.000000 0.000000 NO Data 0 None None HH Fish NA	Bis(chloromethyl)ether	542881	0.000000	0.000000	0.0 <mark>00</mark> 000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
		2921882	0.000000	0.000000	0.000041	0.000083	0.00%	0.00%	No Data	0	None	None	Chronic	Acute	
Chromium (III) 16065831 0.000000 0.000000 0.086180 1.803049 0.00% 0.00% No Data 0 None None Chronic Acute	Chromium (III)	16065831	0.000000	0.000000	0.086180	1.803049	0.00%	0.00%	No Data	0	None	None	Chronic	Acute	
Chromium (VI) 18540299 0.000000 0.000000 0.011000 0.016000 0.00% 0.00% No Data 0 None None Chronic Acute	Chromium (VI)	18540299	0.000000	0.000000	0.011000	0.016000	0.00%	0.00%	No Data	0	None	None	Chronic	Acute	
Demeton 8065483 0.000000 0.000000 0.000100 NA 0.00% 0.00% No Data 0 None None Chronic NA	Demeton	8065483	0.000000	0.000000	0.000100	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA	
Dinitrophenols 25550587 0.000000 0.000000 5.300000 NA 0.00% 0.00% No Data 0 None None HH Fish NA	Dinitrophenols	25550587	0.000000	0.000000	5.300000	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Guthion 86500 0.000000 0.000000 0.0000010 NA 0.00% 0.00% No Data 0 None None Chronic NA	Guthion	86500	0.000000	0.000000	0.000010	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA	
Hexachlorocyclo-hexane-Technical 319868 0.000000 0.000000 0.0000041 NA 0.00% 0.00% No Data 0 None None HH Fish NA	Hexachlorocyclo-hexane-Technical	319868	0.000000	0.000000	0.000041	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
Hydrogen Sulffide, Undissociated 7783064 0.000000 0.000000 0.002000 NA 0.00% 0.00% No Data 0 None None Chronic NA	Hydrogen Sulfide, Undissociated	7783064	0.000000	0.000000	0.002000	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA	
Malathion 121755 0.000000 0.000000 0.000000 NA 0.00% 0.00% No Data 0 None None Chronic NA	Malathion	121755	0.000000	0.000000	0.000100	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA	
Methoxychlor 72435 0.000000 0.000000 0.000000 NA 0.00% 0.00% No Data 0 None None Chronic NA	Methoxychlor	72435	0.000000	0.000000	0.000030	NA		0.00%	No Data	0	None	None	Chronic	NA	
Mirex 2385855 0.000000 0.000000 0.000001 NA 0.00% 0.00% No Data 0 None None Chronic NA	Mirex	2385855	0.000000	0.000000	0.00001	NA	0.00%	0.00%	No Data	0	None	None	Chronic	NA	
Nitrosamines, Other 0.000000 0.000000 0.001240 NA 0.00% 0.00% No Data 0 None None HH Fish NA	Nitrosamines, Other		0.000000	0.000000	0.001240	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
N-Nitrosodibutylamine 924163 0.000000 0.000000 0.000200 NA 0.00% 0.00% No Data 0 None None HH Fish NA	N-Nitrosodibutylamine	924163	0.000000	0.000000	0.000220	NA		0.00%	No Data	0	None	None	HH Fish	NA	
N-Nitrosodiethylamine 55185 0.000000 0.000000 0.001240 NA 0.00% 0.00% No Data 0 None None HH Fish NA	N-Nitrosodiethylamine	55185	0.000000	0.000000	0.001240	NA	0.00%	0.00%	No Data	0	None	None	HH Fish	NA	
N-Nitrosopyrrolidine 930552 0.000000 0.000000 0.034000 NA 0.00% 0.00% No Data 0 None None HH Fish NA	•				4000					0					
	.,													Acute	
Pentachlorobenzene 608935 0.000000 0.000000 0.001500 NA 0.00% 0.00% No Data 0 None None HH Fish NA															
Phthalate esters															
Total Dissolved Solids 0.000000 0.000000 4,845,000,750.000000 NA 0.00% 0.00% No Data 0 None None HH DWS NA															
														Acute	
						*								Acute	

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Fact Sheet Page 8

<u>Parameter</u>	<u>CAS</u> <u>Number</u>	Reported Discharge (mg/l)		Calculated Effluent Limitations (mg/l)		Reasonable Potential		Data Source	No. of	Effluent Requirement		<u>Justification</u>	
<u>ı arameter</u>		<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>	<u>Data Gource</u>	Samples	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>
Uranium		0.000000	0.000000	NA	0.030000	0.00%	0.00%	No Data	0	None	None	NA	Acute
Total Ammonia		0.000000	0.000000	3.360911	19.890204	0.00%	0.00%	No Data	0	None	None	Chronic	Acute

 Hardness
 Chronic
 Acute

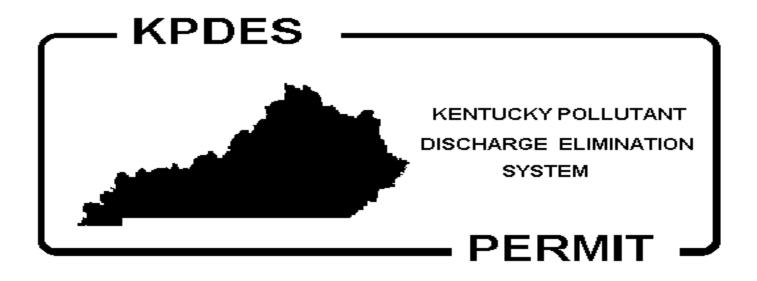
 Metal limitations are developed using the mixed hardness of the
 100.00
 100.00

effluent and receiving waters

**Toxicity** 

Type of TestMaximumUnitsJustificationPercent EffluentChronic1.00TUcChronic100.00%





**PERMIT NO.:** KY0103675 **AI NO.:** 4366

# AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Ashland Incorporated P.O. Box 185 Martha, Kentucky 41159

is authorized to discharge from a facility located at

Ashland Incorporated Route 469, Mile Marker 6 Martha, Johnson County, Kentucky 41159

to receiving waters named

Outfall 001 discharges to Lostlick Branch at latitude 37° 59′ 14″ and longitude 82° 55′ 58″

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, III, III, and IV hereof. The permit consists of this cover sheet, and Part I  $\underline{2}$  pages, Part II  $\underline{1}$  pages, Part III  $\underline{1}$  page, and Part IV  $\underline{3}$  pages.

This permit shall become effective on.

This	permit	and	the	authorization	to	discharge	shall	expire	at.	midniaht.

Date Signed

Sandra L. Gruzesky, Director
Division of Water

PART I Page I-1

Permit No.: KY0103675

AI No.: 4366

#### PART I A - EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 - Storm water runoff from a bioremediation of hydrocarbon contaminated soil unit.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE	MONITORING REQUIREMENTS			
	(lbs/	/day)	Other Units	(Specify)		
	Monthly	Daily	Monthly	Daily	Measurement	Sample
	Avg.	Max.	Avg.	Max.	Frequency	Type
				/-		
Flow (MGD)	Report	Report	N/A	N/A	1/Month	Instantaneous
Precipitation (inches)	Report	Report	N/A	N/A	1/Month	Grab
Total Suspended Solids (mg/l)	N/A	N/A	30	60	1/Month	Grab
Oil & Grease (mg/l)	N/A	N/A	10	15	1/Month	Grab
Benzene (µg/l)	N/A	N/A	N/A	Report	1/Month	Grab
Xylene (µg/l)	N/A	N/A	N/A	Report	1/Month	Grab
pH (standard units)	N/A	N/A	6.0 (min)	9.0 (max)	1/Month	Grab

The abbreviation N/A means Not Applicable.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

PART I Page I-2

Permit No.: KY0103675 AI No.: 4366

#### PART I B - SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with all requirements on the effective date of this permit.



PART II Page II-1

Permit No.: KY0103675

AI No.: 4366

#### PART II - STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

PART III
Page III-1

Permit No.: KY0103675

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#### PART III - OTHER REQUIREMENTS

#### A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water
Hazard Regional Office
233 Birch Street, Suite 1
Hazard, Kentucky 41701
ATTN: Supervisor

Division of Water Surface Water Permits Branch Permit Support Section 200 Fair Oaks Lane Frankfort, Kentucky 40601

#### B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

- 1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- 2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

#### C. Outfall Signage

The permittee shall post a permanent marker at all discharge locations and/or monitoring points. The marker shall be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and shall be posted as near as possible to the actual sampling location.

PART IV Page IV-1

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#### PART V - BEST MANAGEMENT PRACTICES

#### SECTION A. GENERAL CONDITIONS

#### 1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

#### 2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

#### 3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

#### 4. General Requirements

The BMP plan shall:

- a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.
- b. Establish specific objectives for the control of toxic and hazardous pollutants.
  - (1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

PART IV Page IV-2

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(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

- c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."
- d. Include any special conditions established in part b of this section.
- e. Be reviewed by plant engineering staff and the plant manager.

#### 5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

- a. BMP Committee
- b. Reporting of BMP Incidents
- c. Risk Identification and Assessment
- d. Employee Training
- e. Inspections and Records
- f. Preventive Maintenance
- q. Good Housekeeping
- h. Materials Compatibility
- i. Security
- j. Materials Inventory

#### 6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

#### 7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

#### 8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to NREPC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water
Hazard Regional Office
233 Birch Street, Suite 1
Hazard, Kentucky 41701
ATTN: Supervisor

Division of Water Surface Water Permits Branch Permit Support Section 200 Fair Oaks Lane Frankfort, Kentucky 40601

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#### 9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

#### 10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

#### SECTION B. SPECIFIC CONDITIONS

N/A